

WHAT IS CLAIMED IS:

1. A network interface apparatus for connecting a communication terminal to an IP (Internet Protocol) network, comprising:

an input circuit for receiving data to be transferred
5 from the communication terminal;

a transmitter for transferring a packet to the IP network;

an interface circuit for interfacing said transmitter with the IP network, and for determining a delay in transmission between the IP network and said apparatus to produce delay
10 information;

a packetizer circuit for packetizing the data to be transferred into the packet; and

a control circuit operative in response to the delay information for controlling said packetizer circuit to adjust
15 a size of the packet on a basis of the delay information.

2. An apparatus in accordance with claim 1, wherein said control circuit comprises a memory circuit for storing therein packet size data representative of packet sizes, and for developing packet size data associated with the delay
5 information, said packetizer circuit adjusting the size of the packet in response to the packet size data developed from said memory circuit.

3. An apparatus in accordance with claim 1, further comprising:

a receiver for receiving a packet transmitted over the IP network; and

an output circuit for depacketizing the packet into data
5 and outputting the data to the communication terminal.

4. A network interface apparatus for connecting a communication terminal to an IP (Internet Protocol) network,

comprising:

an input circuit for receiving data to be transferred
5 from the communication terminal;

a transmitter for transferring the data to the IP network;

an interface circuit for interfacing said transmitter
with the IP network, and for determining a delay in transmission
between the IP network and said apparatus to produce delay
10 information; and

a control circuit interconnected between said input circuit
and said transmitter and operative in response to the delay
information for controlling said transmitter to adjust a
transfer rate of transferring the data on a basis of the delay
15 information.

5. An apparatus in accordance with claim 4, further
comprising:

a receiver for receiving data transmitted over the IP
network; and

an output circuit for outputting the transmitted data
5 to the communication terminal;

said control circuit being further interconnected between
said receiver and said output circuit and controlling said
output circuit to adjust a transfer rate of outputting the
10 transmitted data on a basis of the delay information.

6. An apparatus in accordance with claim 4, further
comprising a packetizer circuit for packetizing the data to
be transferred into a packet,

said transmitter transferring the data in a form of packet,

5 said control circuit being operative in response to
the delay information to control said transmitter to adjust
a transfer rate of transferring the packet.

7. An apparatus in accordance with claim 6, further

comprising:

a receiver for receiving a packet transmitted over the IP network; and

5 an output circuit for depacketizing the packet into
data and outputting the data to the communication terminal;
said control circuit controlling said output circuit
to adjust a transfer rate of outputting the data on the
basis of the delay information.

8. A network interface apparatus for connecting a communication terminal to an IP (Internet Protocol) network, comprising:

an input circuit for receiving data to be transferred
5 from the communication terminal;

a transmitter for transferring a packet to the IP network;

an interface circuit for interfacing said transmitter with the IP network;

10 a packetizer circuit for packetizing the data to be transferred into a packet to develop the packet;

a packet coupler for coupling two or more of the packets with each other; and

said packet coupler inhibiting said packetizer circuit
15 from developing the packet when said packet coupler includes more packets than a first predetermined amount.

9. An apparatus in accordance with claim 8, further comprising a control circuit for controlling said packet coupler to couple more packets when said packetizer circuit includes more data to be packetized.

10. An apparatus in accordance with claim 8, wherein said interface circuit determines a delay in transmission between the IP network and said apparatus to produce delay

information;

- 5 said apparatus further comprising a control circuit operative in response to the delay information for controlling said packetizer circuit to adjust a size of the packet on a basis of the delay information.

11. An apparatus in accordance with claim 8, wherein said packet coupler comprises:

a memory circuit for storing the coupled packets therein; and

- 5 a memory control circuit operative in response to said packetizing circuit and said memory circuit for controlling writing and reading of said memory circuit on a basis of whether or not said packetizer circuit includes more data to be packetized than the first
10 predetermined amount and of whether or not said memory circuit includes more packets than a second predetermined amount.

12. An apparatus in accordance with claim 10, further comprising:

a receiver for receiving a packet transmitted over the IP network; and

- 5 an output circuit for depacketizing the packet into data and outputting the data to the communication terminal; and

- said control circuit controlling said output circuit to adjust a transfer rate of outputting the data on the
10 basis of the delay information.

13. A communication apparatus for transferring data to an IP (Internet Protocol) network, comprising:

an input circuit for capturing an image of a document and forming data to be transferred representing the image;

5 a transmitter for transferring a packet to the IP network;

an interface circuit for interfacing said transmitter with the IP network, and for determining a delay in transmission between the IP network and said apparatus
5 to produce delay information;
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a packetizer circuit for packetizing the data to be transferred into the packet; and

a control circuit operative in response to the delay information for controlling said packetizer circuit to
11 adjust a size of the packet on a basis of the delay information.
15

14. A communication apparatus for transferring data to an IP (Internet Protocol) network, comprising:

an input circuit for capturing an image of a document and forming data to be transferred representing the image;

5 a transmitter for transferring the data to the IP network;

an interface circuit for interfacing said transmitter with the IP network, and for determining a delay in transmission between the IP network and said apparatus
10 to produce delay information; and

a control circuit interconnected between said input circuit and said transmitter and operative in response to the delay information for controlling said transmitter to adjust a transfer rate of transferring the data on a
15 basis of the delay information.

15. A communication apparatus for transferring data to an IP (Internet Protocol) network, comprising:

an input circuit for capturing an image of a document and forming data to be transferred representing the image;

5 a transmitter for transferring a packet to the IP

network;

an interface circuit for interfacing said transmitter with the IP network;

10 a packetizer circuit for packetizing the data to be transferred into a packet to develop the packet;

a packet coupler for coupling two or more of the packets with each other; and

15 said packet coupler inhibiting said packetizer circuit from developing the packet when said packet coupler includes more packets than a first predetermined amount.

16. A method of interfacing a communication terminal with an IP (Internet Protocol) network, comprising the steps of:

5 receiving data to be transferred from the communication terminal;

determining a delay in transmission over the IP network;

10 packetizing the data to be transferred into a packet; adjusting a size of the packet on a basis of the delay determined; and

transferring the packet having the size adjusted to the IP network.

17. A method of interfacing a communication terminal with an IP (Internet Protocol) network, comprising the steps of:

5 receiving data to be transferred from a communication terminal;

determining a delay in transmission over the IP network;

10 adjusting a transfer rate of transferring the data on a basis of the delay determined; and

transferring the data to the IP network.

18. A method of interfacing a communication terminal with an IP (Internet Protocol) network, comprising the steps of:

5 receiving data to be transferred from the communication terminal;
packetizing the data to be transferred into a packet by a packetizer circuit;
coupling two or more of the packets with each other by a packet coupler;
10 transferring the packet to the IP network; and
inhibiting the packetizer circuit from developing the packet when the packet coupler includes more packets than a predetermined amount.

19. A storage medium for storing therein a procedure of interfacing a communication terminal with an IP (Internet Protocol) network, comprising the steps of:

5 receiving data to be transferred from the communication terminal;
determining a delay in transmission over the IP network;
packetizing the data to be transferred into a packet;
adjusting a size of the packet on a basis of the delay
10 determined; and
transferring the packet having the size adjusted to the IP network.

20. A storage medium for storing therein a procedure of interfacing a communication terminal with an IP (Internet Protocol) network, comprising the steps of:

5 receiving data to be transferred from a communication terminal;
determining a delay in transmission over the IP

network;

adjusting a transfer rate of transferring the data
on a basis of the delay determined; and

10 transferring the data to the IP network.

21. A storage medium for storing therein a procedure
of interfacing a communication terminal with an IP
(Internet Protocol) network, comprising the steps of:

5 receiving data to be transferred from the
communication terminal;

packetizing the data to be transferred into a packet
by a packetizer circuit;

coupling two or more of the packets with each other
by a packet coupler;

10 transferring the packet to the IP network; and

inhibiting the packetizer circuit from developing
the packet when the packet coupler includes more packets
than a predetermined amount.